

REMARKS

Status of the claims:

With the above amendments, claims 13-21 have been added. Thus, claims 1 and 3-21 are pending and ready for further action on the merits. No new matter has been added by way of the above amendments. New claim 13 has support from original claims 1 and 3. Claims 14-19 have support from original claims 4-9. Claim 20 has support at page 8, line 4. Claim 21 has support at page 10, line 19. Reconsideration is respectfully requested in light of the following remarks.

Supplemental Response

Please note that this response is not meant to supercede the response of April 16, 2004 but is only meant to supplement that response. All comments made in that response are herein incorporated by reference into the instant response.

Rejections under 35 USC §103

Applicants herein provide distinguishing characteristics between claims 13-21 and the references that were cited in the Office Action of December 16, 2003.

Distinguishing characteristics of the Instant Invention from Bass '500

The fuel cell of the present invention distinctly differs from the disclosure of Bass '500 as indicated below.

For the Examiner's reference, Table 1a is presented that shows differences between the present claimed invention in claim 13 and Bass '500.

Table 1a

	Electrode	Electrolyte
The present invention	Catalyst layer deposited or coated.	Tubular polymer electrolyte.
Disclosure of Bass '500	Solid cylindrical carbon rod(core).	Polymer electrolyte fitted on carbon rod.

As shown in Table 1a, the claim 13 comprises a catalyst layer deposited or coated on a tubular polymer electrolyte.

In contrast, the fuel cell of the Bass '500 employs a solid cylindrical carbon rod as the electrode to sustain a polymer electrolyte.

Thus, the instant invention has all of the advantages that were discussed at length in the reply of April 16, 2004. In particular, the instant invention possesses advantages over Bass '500 in the catalytic activity, the kind of fuel, the heat

generation, as well as the preparation method as was discussed in the response of April 16, 2004.

In addition to these advantages, the catalyst of the present claimed invention is superior because the catalyst can also act as the electrode because it comprises conductive materials such as metals from the platinum family. Therefore, for the electrode in the instant invention, it is not necessary to employ other materials such as carbon. Accordingly, the instant invention can neither be anticipated nor rendered obvious by Bass '500.

Distinguishing characteristics of the Instant Invention from Muthuswamy '188

Likewise, Muthuswamy '188 also possesses a solid rigid central core. Thus, as is the case with Bass '500, the instant invention is superior to Muthuswamy '188 in that it possesses advantages in the catalytic activity, the kind of fuel, the heat generation, as well as the preparation method as was discussed in the response of April 16, 2004. For these reasons, Applicants submit that the instant invention is patentable over all of the cited art in the Office Action of December 16, 2003.

Thus, with the above remarks and amendments, Applicants believe that the claims, as they now stand, define patentable subject matter such that passage of the instant invention to

allowance is warranted. A Notice to that effect is earnestly solicited.

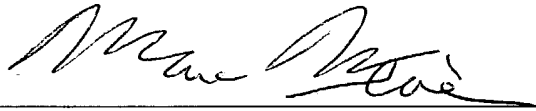
If any questions remain regarding the above matters, please contact Applicant's representative, T. Benjamin Schroeder (Reg. No. 50,990), in the Washington metropolitan area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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